PX 52

From:	Patrick Griffin < ████ @ripple.com>
To:	████
CC:	████ Chris Larsen
Sent:	5/9/2013 3:39:53 PM
Subject:	Re: ████ /OpenCoin Next Steps
Attachments:	Ripple for Gateways 5.13.pdf; Attachment2

████   FYI, here is the deck we are using for banks/gateways. We are focusing on the payment network and downplaying the xrp.

Patrick

OpenCoin Inc.

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Gateways
May 2013

The Ripple Ambition

Power all commerce on the Internet

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Summary

Ripple in Three:

1. Payment Network

2. Currency Exchange

3. Math-backed Currency

What is a Payment Network?
A Common Ledger vs. Walled Gardens

- An accounting ledger to track account balances, or;
- A pathway between different ledgers to enable interoperability

- Ripple is both, at the same time – a common ledger to support the seamless transfer of payments without the need for interoperability
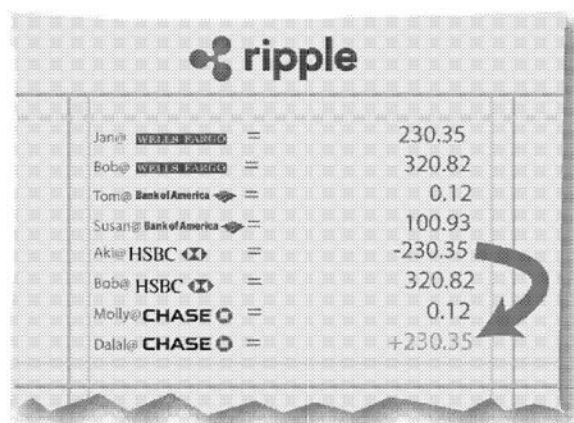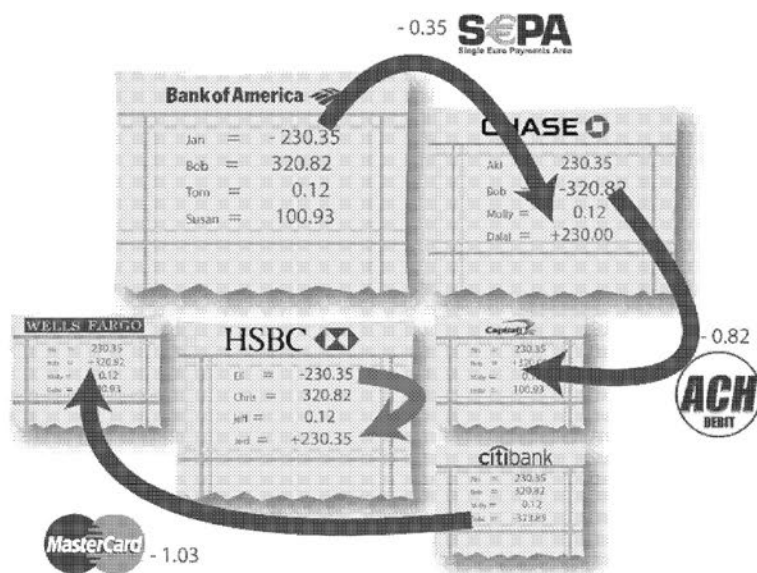
Payment Network

## Ripple is Protocol
Free

- Like http, Ripple contains request-response protocol

- Standards for transaction 'calls': send, receive, credit, trade, etc.

- Transact directly with any other node (person or institution) in the protocol

- Transact in any currency

- Decentralized system hosted on servers distributed around the world
  - ➢ No one owns Ripple

- Open for any developer to use without license, permission or fees
  - ➢ No network operator means no network operator fees

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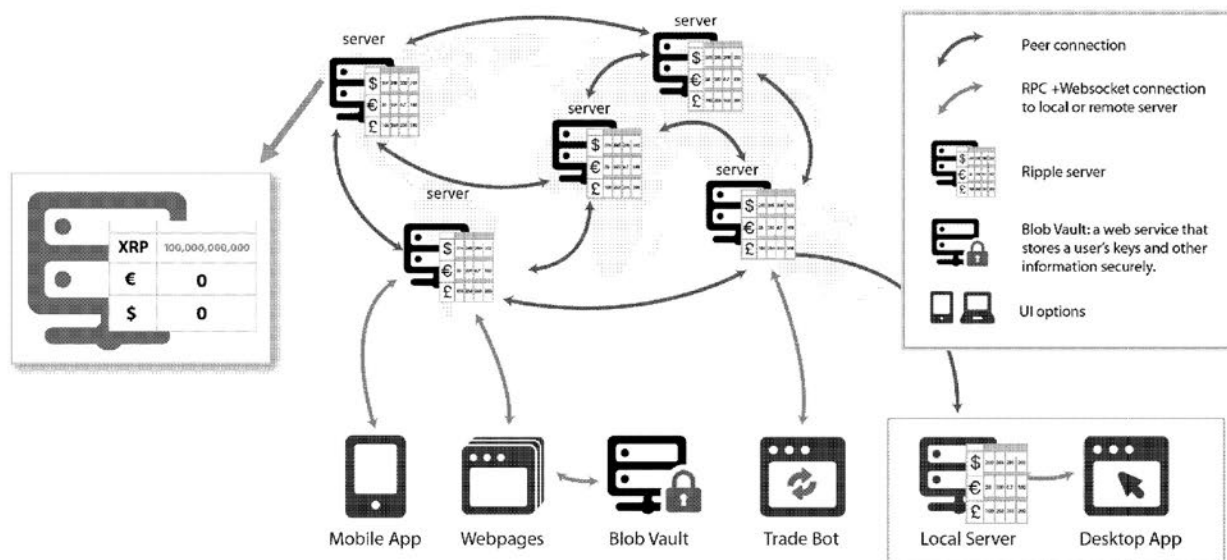Proprietary and Confidential OpenCoin Inc. 2013

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The Ripple Eco-system

Payment Network
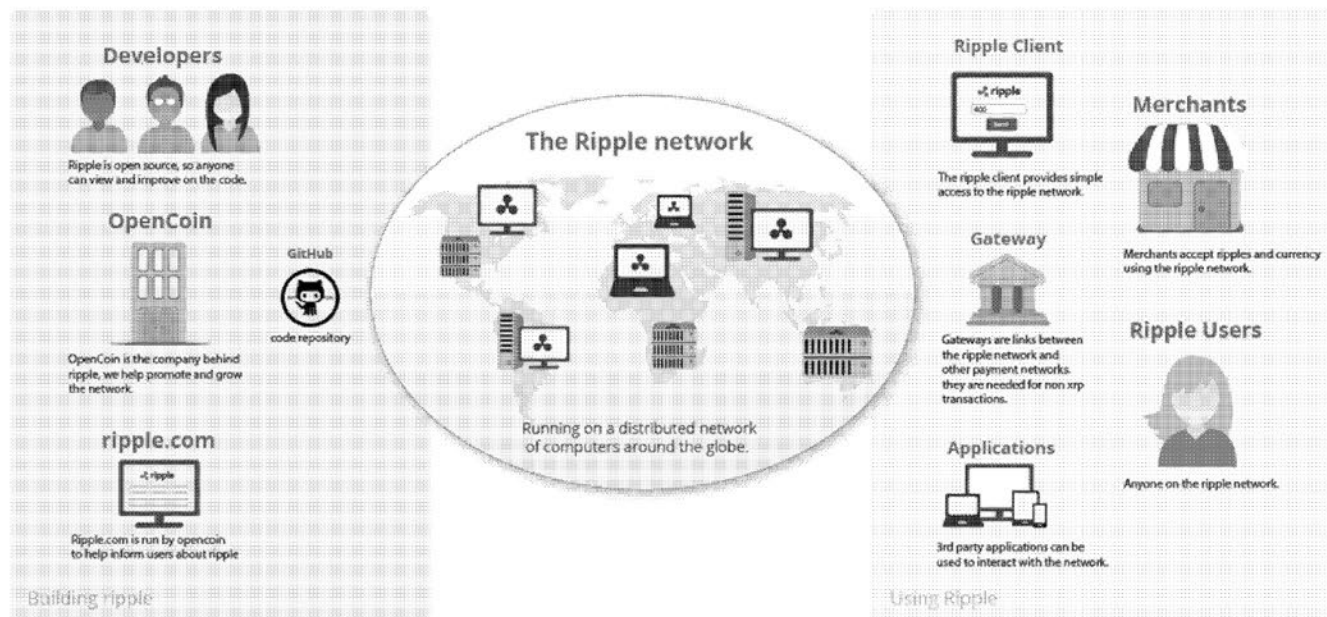
Clearing through Consensus
Instant & Irreversible

- Transactions that appear valid to the majority of servers are updated in the ledger
- When the ledger updates, all intervening transactions clear and settle
- Consensus is reached every ≤5 sec
- The state of the ledger cannot be reversed

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Payment Network

Summary of Market Agents

Buyers

$100

Sellers

Market Makers
(forex trading)

$100   £50

Gateways
(cash-in/out)

$100

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Payment Network

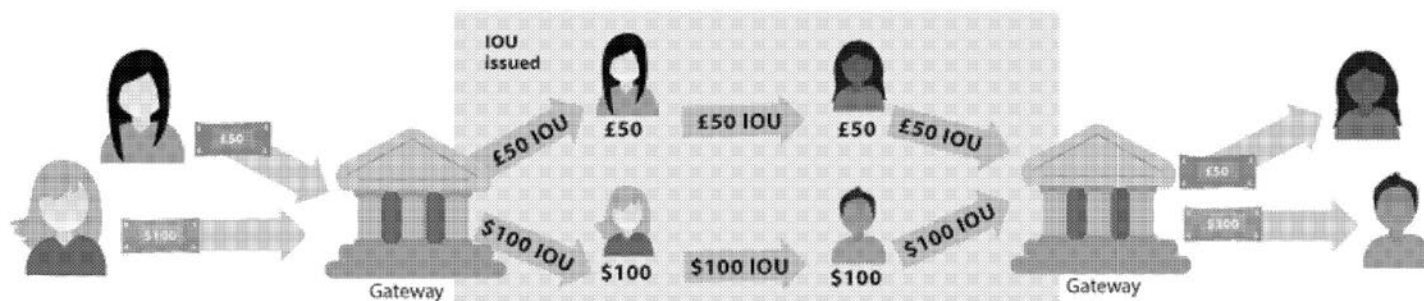## Gateways
Banks and Counterparty Risk

- Gateways are like banks

- They can be banks, MTB's, MSB's, FI's, or forex exchanges

- How does a bank work today?
  - A bank takes in cash deposits and issues a balance
  - The deposited cash is loaned out immediately
  - Since the bank no longer holds the cash, the depositor's balance is a liability—an IOU
  - IOU can be redeemed on demand (aka demand deposits)
  - IOU balances are stored and tracked (credits & debits) in the bank's *proprietary* ledger

- All debt instruments (IOU) carry <u>counterparty risk</u>:
    "Will the asset be there when the debt claim is presented?"

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Payment Network

Gateways
How to move cash into Ripple

- Ripple is a *common* ledger
- Each gateway takes deposits and issues a unique IOU into the ledger
- IOU can be transferred across the ledger without intermediaries
- IOU are redeemable for the deposit, on demand, at the issuing gateway

- Why? Revenue.

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Gateways
Revenue Opportunity

- Ripple protocol supports any fee structure for IOU issuance
- Possible Gateway Revenues:
  - Deposit Fee
  - Withdrawal Fee
  - Transfer Fee
- Fees can be flat or variable, but will be subject to market competition
  - Transfer Fees as Decaying Obligations
    - i.e., Bitstamp charges 0.20% every time their IOU is transferred from one account to another

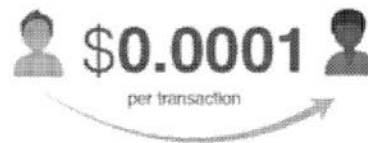- 'Aggressor' of transaction (i.e., buyer) pays any gateway fees

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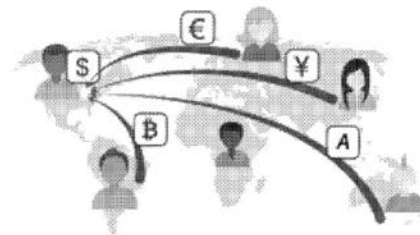Proprietary and Confidential OpenCoin Inc. 2013

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Payment Network

Benefits

Instant

Free-'ish'

Irreversible

Global

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Distributed Exchange

Global Distributed Exchange
Resolve Cross-Currency Transactions

- Anyone can create bid/ask offers for any currency pair & broadcast it across the protocol

- Why? To profit from forex spreads

- Ripple automatically moderates cross-currency transactions through the cheapest available bid/ask in the protocol

- This eliminates the need for external exchanges

- Supports algorithm-driven trading

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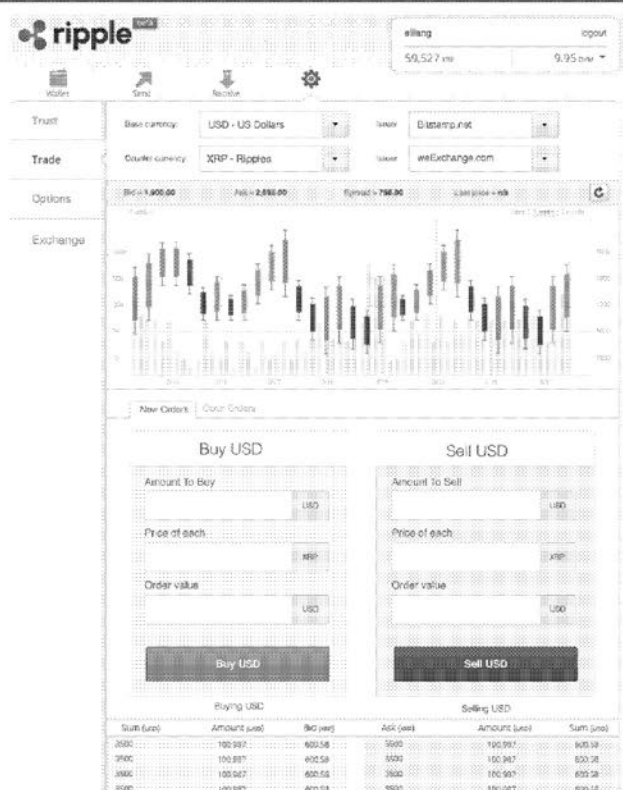
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Distributed Exchange

Benefits of the Distributed Exchange

Key Points
- 'Aggressor' of transaction (i.e., buyer) pays any forex spread
- Forex liquidity is determined by availability of bid/ask orders

Value Proposition
- Automatic cross-currency convertibility
- Merchants receive complete asking price
  - no network, issuer, or forex deductions
- No currency exposure:
  - Pay in preferred currency
  - Settle in preferred currency
- Wholesale forex spreads without intermediaries
- Arbitrage the Aggregate Internet Transaction Volume

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Distributed Exchange
Cross-currency transaction through a market-maker
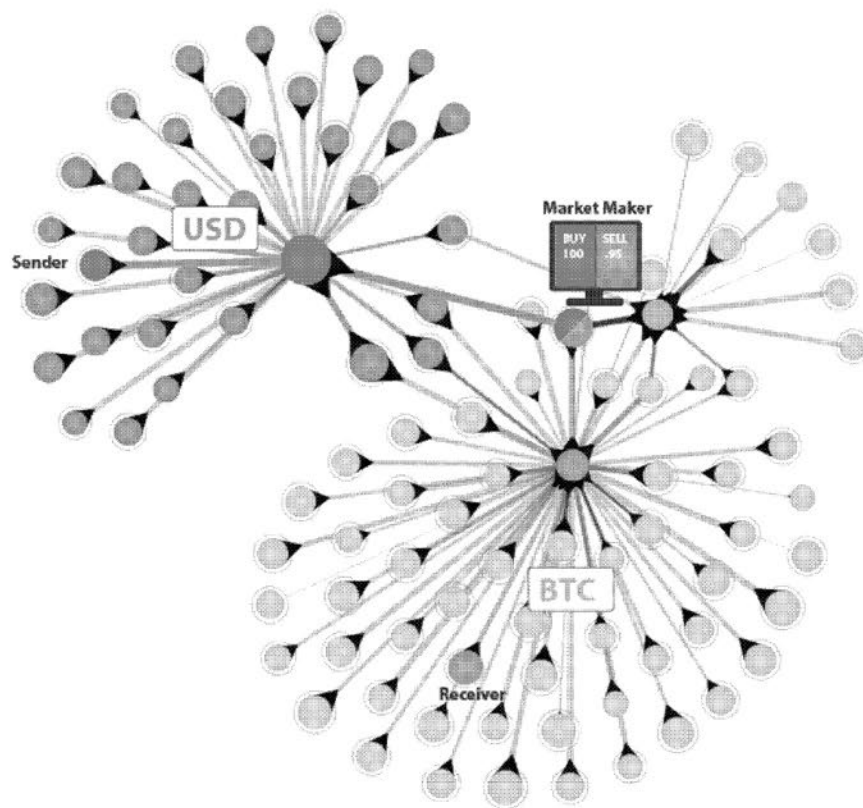
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Math-backed Currency

Ripples (XRP) – the Currency

➢ **XRP is only one currency in Ripple. Ripple supports all currencies.**

▪ XRP uses <u>cryptography</u> to achieve monetary trust and utility:
  - ▪ Unit of Account – 100% divisible and numéraire
  - ▪ Medium of Exchange – liquid across any connected device
  - ▪ Store of Wealth – supply is fixed and counterfeit-proof

▪ Because XRP uses math as an 'asset' it exists virtually, inside the Ripple protocol.
▪ XRP in cyberspace is the equivalent to paper cash in the physical world

Trust
Utility
Liquidity

Trust
Utility
Liquidity

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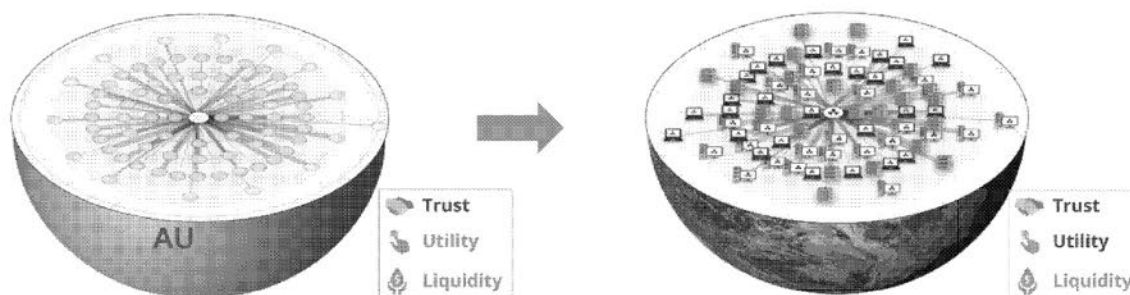
Math-backed Currency

The Role of XRP in Ripple

Security*

- Transaction Fee (0.000001 XRP is destroyed) prevents DDoS attacks
- Reserve requirements prevent ledger spam

*(Note: federation obfuscates the visibility of XRP)

Efficiency

- Forex - counterparty hedging (XRP trade freely with IOU); vehicle currency
- Eliminate costs - transact without issuer fees, without forex spreads
- Global currency for the Web – no counterparty risk or fees

Value

- 100B XRP - supply cannot be changed
- Deflationary
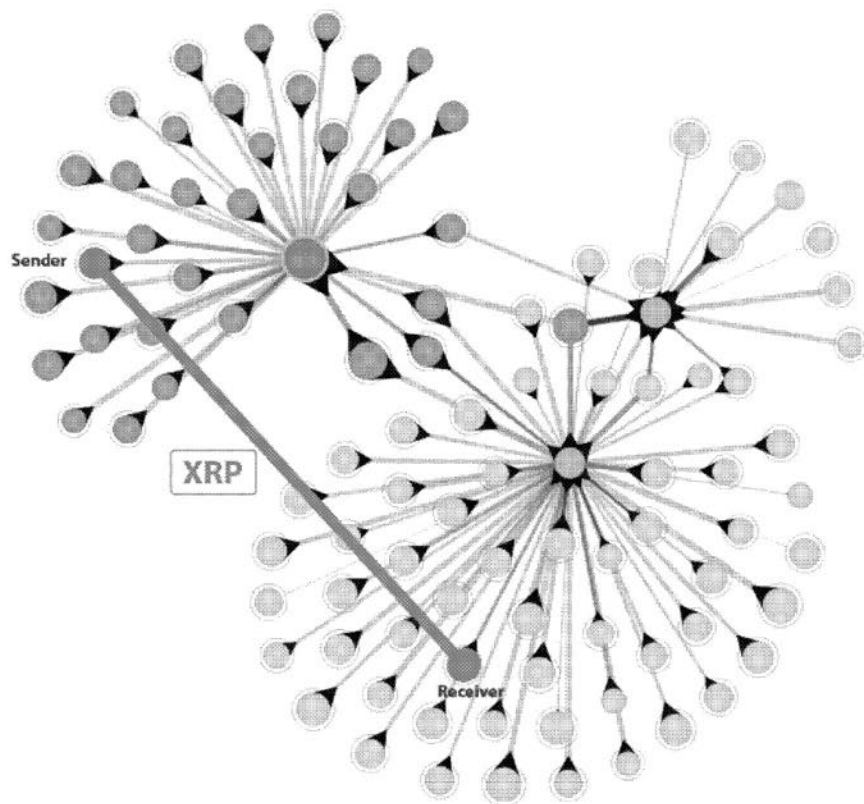- XRP is valued by its usefulness to Internet commerce

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Math-backed Currency

XRP
Payment without counterparty

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Math-backed Currency

The Business Model
Adoption of the Ripple Currency

- Ripple's business model is based on the success of its native currency
  - OpenCoin will keep between 25% to 30% of all currency created
  - OpenCoin will sell to wholesale MSB's over time to fund itself

- Can a virtual currency really create and hold value? *Bitcoin proves it can.*
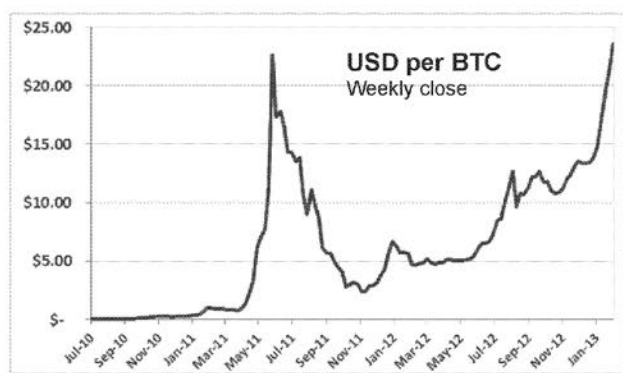
Launched in 2009, Bitcoin started trading below $.05, then spiked to $30 in mid-2011 before crashing to $2. It has since reached record highs.

OpenCoin Inc. vs Ripple

OpenCoin Inc.

- For-profit corporation
- OpenCoin owns all of the XRP at the outset
- Company mandate:
    1. Hire developers to contribute to the Ripple source code
    2. Hire BD/Sales/Marketing to promote the adoption of the Ripple protocol
    3. Administer the dispersal of XRP

Ripple

- Ripple is the open-source product
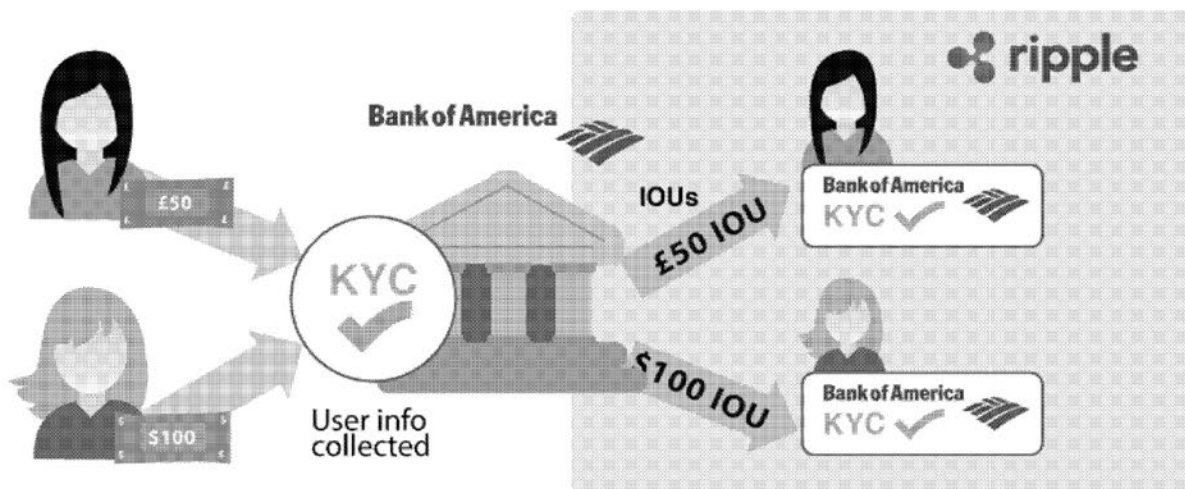- No one owns Ripple

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Law Enforcement
Gateway KYC Diligence

1. Gateways perform AML, BSA, KYC & links identity to Ripple Key

2. Shows each transaction and public key involved, which links to that key's activity

Law Enforcement
Gateway AML Controls

- Gateways stipulate who can hold their IOU when issuing
- By regulation, gateway will be required to govern the circulation of their IOU
- Gateway will subject every account holder to KYC

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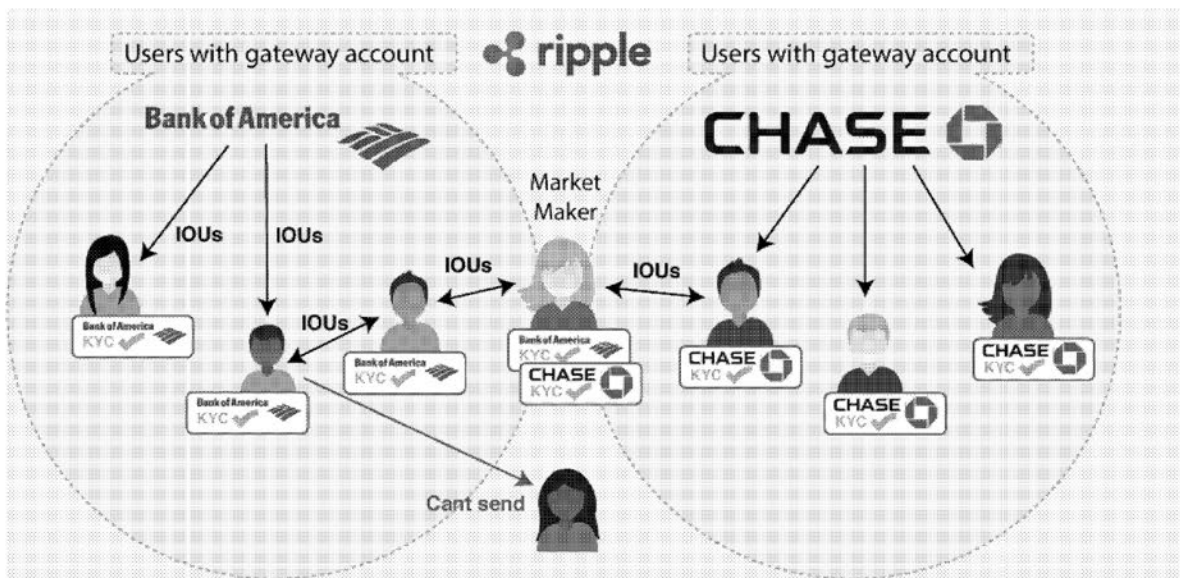
OpenCoin Inc.
Financial and Operating Highlights

- Distributed 500 million XRP so far (.5% of total)

- $530,000 in XRP wholesale purchases to date

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- Hired ▮▮▮▮▮ as tax and audit firm in Q1

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RPLI_SEC 0070375

OpenCoin Inc.
Investors

Investors include:

- ████████████████
- ████████████████
- ████████████████████
- █████████████████████████
- ████████████
- ████████████
- ███████████
- ███████ and ████████████

OpenCoin Founders and Team

Chris Larsen, CEO and co-founder
- CEO and co-founder, Prosper.com, 2004 to 2012: peer-to-peer lending marketplace
- CEO and co-founder, E-LOAN, 1996 to 2004: publicly traded online lender

Jed McCaleb, CTO and co-founder
- CTO and founder, ██████ 1999 to 2005: creator of the ██████ file sharing application
- CEO and founder, ██████ 2010 to 2011: largest Bitcoin exchange, sold in 2011 to start this venture

David Schwartz, Chief Cryptographer
- Chief Technical Officer, ██████████ 2001-2011. Worked with NSA on cryptography

██████████ Head User Engagement
- CEO ██████ asian pop site. Cohost ██████ show. Cofounder ████████ consumer shopping mobile app

██████████ Head Virality
- Creator "████████████". Cofounder ████████

Patrick Griffin, Head of Business Development
- Founding team at ██████ Built the sales and business development strategy and team

Arthur Britto, Software developer and co-founder
- Created one of the first ISP's and one of the first Bitcoin exchanges. Highly respected in Bitcoin community

██████████ Software developer
- Early development contributor and leading voice for Bitcoin. Created ██████████ a popular Bitcoin portal
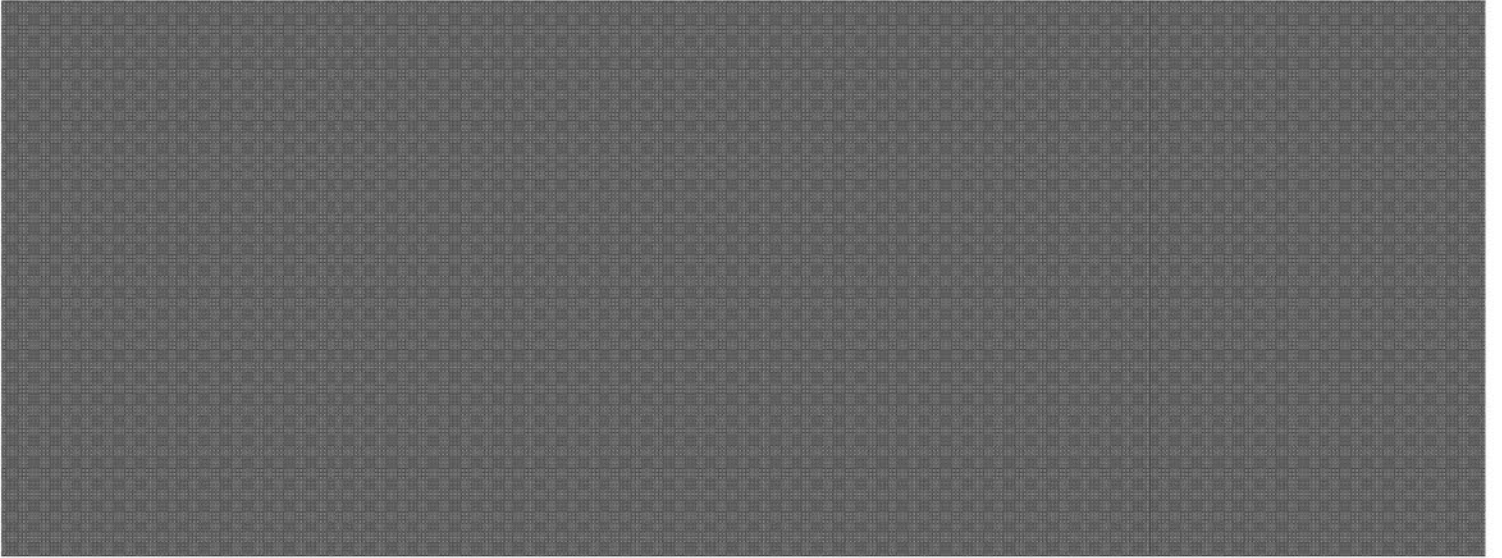
██████, UI designer
- Worked at ██████ ██████ ██████ ██████ and many others

‹ ripple

@ripple.com

APPENDIX

Summary

- Ripple is a distributed open source payments network that enables:
    - Free global payments without chargebacks to anyone, anywhere
    - Ability to pay in any currency using the world's first distributed currency exchange
    - Open protocol that any developer can use without license, permission or fees

- The Ripple network enables the creation of a new currency called ripples
    - Like bitcoins, trust as a store of value is based on a math relationship of servers in a distributed network
    - New users receive free ripples when they create an account
    - Ripples are the native currency of the payment network. For example, they are used in lieu of transaction fees to prevent system attacks

- OpenCoin Inc. maintains the software and promotes the network
    - The company's business model is based on ripples gaining acceptance and value
    - The company does not control or direct transactions in any way

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Ripple Network
Comparison to Bitcoin

- The Network includes a native currency called ripples or XRPs. 100 Billion XRP are created at inception – this amount can not be increased.
- Ripple currency focuses on the key attributes of trust, utility and liquidity better than Bitcoin, the other major math-based global currency

Trust

Utility

Liquidity

Equal to Bitcoin trust:
- Amount can't be changed
- Math method currency

Better than Bitcoin trust:
- Ledger consensus solves 51% attack problem

Better than Bitcoin utility:
- Confirms in seconds vs. 10 plus minutes
- Allows any currency - BitCoin is Bitcoin only
- No blockchain scale limitation
- Can adopt Ripple in preferred currency

Improved liquidity:
- Anyone can provide currency exchange
- Trade currency within network

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OpenCoin Inc.
Regulatory and Legal

- Retained Perkins Coie to advise on regulatory issues
  - Dax Hansen, Partner in charge of Electronic Financial Services practice with expertise in electronic payments and virtual currencies

Perkins Coie

- Mitigating regulatory risks
  - We do not maintain the payments system or client on our servers. The product is a distributed open source platform that is not centrally controlled.

  - We will position the distributed design of the platform as entirely about cost reduction to consumers and merchants.

  - We will actively engage with law enforcement and only promote legal and constructive uses of the platform.

  - Bitcoin has operated for 3 years without much regulatory concern - the FBI and ECB have issued extensive reports on Bitcoin that were fairly neutral.

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OpenCoin Inc.
Key Regulatory Issues and Tactics

- *Is OpenCoin subject to FinCEN duties as a money transmitter?*
  - While virtual currency regulation is still evolving, OpenCoin does not authorize payments, control transactions or operate the servers that run the network

- *Although currencies are specifically exempt from securities law, virtual currencies such as Bitcoin have not received designation as currencies. As such, is this new currency a security?*
  - Will not be sold to users or investors in the Corporation
  - Will be given away for free to users
  - Will only sell to licensed wholesale MSB's

- *Are we responsible for illegal uses of the platform?*
  - We will only promote legal uses
  - We will work closely with law enforcement to fight fraud and scams
  - Platform interfaces with the traditional banking system through 'Gateways', which are licensed MSBs and/or money transmitters
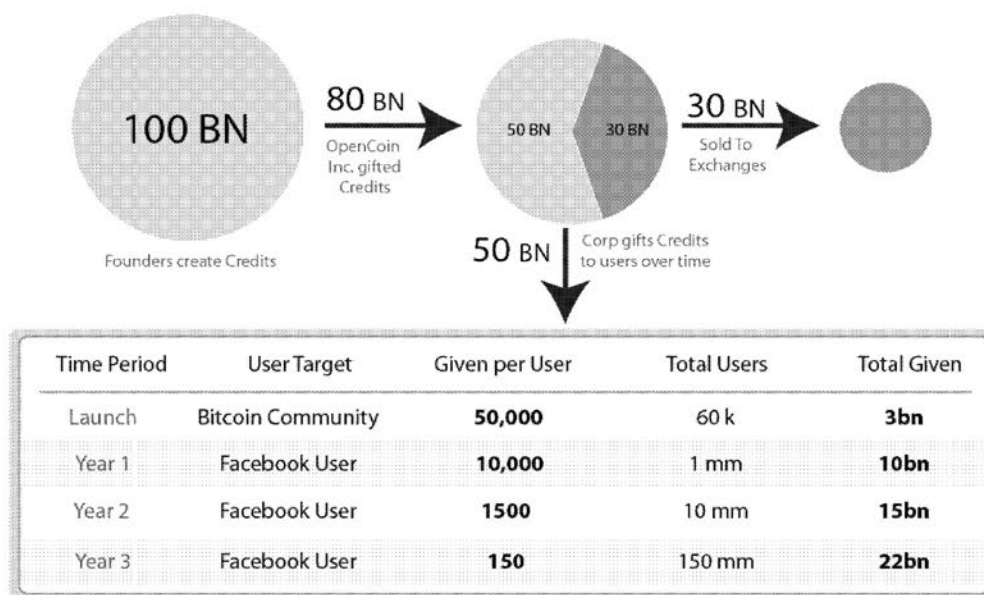
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The Ripple Network
Distribution of XRP

- About half of all ripples will be given away. Regular users will receive the equivalent of about $5 to $10.
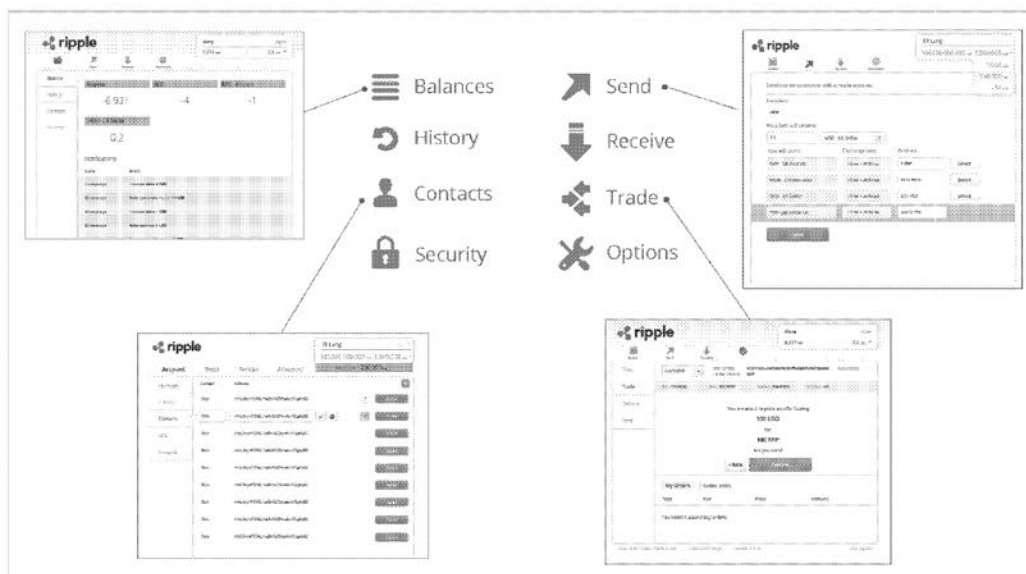- Bitcoin users will receive larger gifts to encourage early support.

Time Period	User Target	Given per User	Total Users	Total Given
Launch	Bitcoin Community	50,000	60 k	3bn
Year 1	Facebook User	10,000	1 mm	10bn
Year 2	Facebook User	1500	10 mm	15bn
Year 3	Facebook User	150	150 mm	22bn

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The Ripple Network
Open Source Example Client

- A Ripple client exists at www.ripple.com/client to demonstrate basic Ripple features like sending, receiving, and exchanging ripples or Gateway IOUs denominated in other currencies.
- The client is open source at github.com and can be used without license, fees or permission. We expect many third party clients to appear soon.

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